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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/595,901

12/29/2006

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EXAMINER

KRAMER, DEAN J

ART UNIT

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3652

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/595,901	Applicant(s) NISHIO, YOSHITAKA	
	Examiner Dean J. Kramer	Art Unit 3652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 May 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The exact meanings of the phrases “sucks in vacuum a sucking surface” (claims 1, 8, and 9), “guard shape” (claim 2), “remaining a first opening” (claim 2), “remaining a second opening” (claim 2), and “gas is blew from” (claim 9) are not clearly understood.

There is no clear antecedent basis for “said second opening side” as recited in claim 4, line 2.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 7, as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Snyder et al. (5,029,383) in view of Tarbuck (4,600,228).

The patent to Snyder et al. shows an embodiment of a vacuum suction head in Figure 4 wherein an elastic supporter (62) allows for vertical and angular motion of a shaft (54). The suction pad (55) of this embodiment is not specifically disclosed as having both an "air charging and discharging hole" as is called for in claim 1 of the instant application.

However, Tarbuck shows a suction head substantially similar to the Snyder et al. Figure 4 embodiment, but Tarbuck's head is designed to permit positive air pressure as well as negative air pressure through its suction pad (see col. 2, lines 30-33).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to supply positive *and* negative air pressure through the Snyder et al. suction pad as taught by Tarbuck in order to effectively eject a workpiece from the pad once it has been transported to a desired location.

5. Claims 5 and 6, as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Snyder et al. in view of Tarbuck as applied to claim 1 above, and further in view of French Patent No. 2547289.

French Patent 2547289 shows a suction pad comprising independent concave and convex parts (17,19), an air tight part (16), grooves (18), and a skirt (13).

It would have been obvious to a person having ordinary skill in the art to form the modified Snyder et al. suction pad with an underside surface similar to that shown in the French ('289) patent in order to better accommodate planar work pieces having surface irregularities.

6. Claim 8, as understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Snyder et al. in view of Tarbuck as applied to claim 1 above, and further in view of Boke et al. (4,846,517).

The patent to Boke et al. shows a vacuum suction device comprising a plurality of individually moveable suction heads (see Fig. 3) for picking up large sheets of material (19-24).

It would have been obvious to one of ordinary skill in the art to individually mount a plurality of the modified Snyder et al. suction heads on a robotic vacuum suction frame as taught by Boke et al. so that large blanks of material could be more securely gripped and transported.

7. Claims 9 and 10, as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Snyder et al. in view of Tarbuck as applied to claim 1 above, and further in view of Japanese Patent No. 2002-307356.

Japanese Patent No. 2002-307356 shows a table (see Fig. 9) having a plurality of individually moveable vacuum suction head for collectively supporting an irregularly shaped workpiece (see Fig. 8).

It would have been obvious to a person having ordinary skill in the art to mount a plurality of the modified Snyder et al. suction heads on a table similar to that shown in Figure 9 of the Japanese ('356) patent in order to reliably support a workpiece prior to transporting it to its next location during the manufacturing process thereof.

Allowable Subject Matter

8. Claims 2-4 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Drawings

9. Figures 1-4 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

10. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "65A". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top

Art Unit: 3652

margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

11. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

12. The disclosure is objected to because of the following informalities: The specification improperly refers to the claims by specific claim number (see paragraphs [0021], [0028], and [0029]). Also, in paragraph [0054], line 5, reference character "42c" (second occurrence) should be changed to --42d--.

Appropriate correction is required.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Each of the remaining cited references shows a suction head having at least limited movement relative to its supporting casing.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dean J. Kramer whose telephone number is (571) 272-6926. The examiner can normally be reached on Mon., Tues., Thurs., Fri..

Art Unit: 3652

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saul Rodriguez can be reached on (571) 272-7097. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dean J Kramer/
Primary Examiner, Art Unit 3652

djk
4/15/09